

### **Prairie Dog Facts**

#### **Learner Outcomes**

The learner will

- Apply facts about the natural history and distribution of prairie dogs to the successful establishment of a new colony.
- Classify the black-tailed prairie dog using Linneaus' classification and binomial nomenclature system.
- Construct a life-cycle diagram of the black-tailed prairie dog.
- Explain how diseases are transmitted from prairie dogs to other animals, including humans.
- Discuss other diseases that can be transmitted to humans from animal contact.
- Gather, record and present information about the black-tailed prairie dog.

#### **Background**

Since the Pleistocene Epoch the black-tailed prairie dog has inhabited the Great Plains region of North America. Since the 1900s black-tailed prairie dog populations have declined 98%. As a product of co-evolution, the black-tailed prairie dog played a key role in prairie ecosystems. The black-tailed prairie dog was once a part of the Guadalupe Mountains National Park ecosystem, and reintroduction of this species has both aesthetic and functional value. Refer to the Study Proposal for details.

#### **Materials**

- Supplements numbers 3.1 through 3.15
- *The Mammals of North America* Vol. 1, 1959 by Hall and Kelson
- *The Mammals of New Mexico*, 1975 by Findley, *et al.*
- National Geographic Magazine, April 1998
- Transparencies
- Overhead projector
- Slides
- Slide projector
- Colored pencils

#### **Assessments**

- Post-test
- Daily work – work sheets, charts and diagrams

Activity #1  
**Pre-test & Presentation Assignments**  
30 minutes

**Procedure**

The teacher will

- Administer pre-test.
- Divide class into four smaller groups and assign each group a topic to present to the class. Topics should include the following: Distributions of the Prairie Dog, Prairie Dog Classification, the Life-Cycle of the Prairie Dog, and Diseases Transmitted by the Prairie Dog to Other Animals and Diseases Transmitted by Animals to Humans.
- The teacher leads a discussion integrating the study proposal as an orientation to the prairie dog reintroduction study.

Activity #2  
**Study Proposal and Field Protocol**  
1 class period

**Procedure**

The teacher will

- Invite a guest speaker from Guadalupe Mountains National Park to review the study proposal and field protocol with the class.

**Performance Activities #3 through #7**

**General Procedures**

- Students should develop their presentations as a stand-alone visual with a variety of audiences.
- Teachers and students may wish to develop a list of quality criteria for each visual and/or presentation.

Activity #3  
**Distribution**  
1 class period

**Procedure**

The teacher will

- Allow group #1 to present a 25-minute lesson on the distributions of prairie dogs.
- Instruct all students to answer related questions on work sheet.
- Have all students color distribution map work sheets and answer questions.

Activity #4  
**Classification**  
1 class period

**Procedure**

The teacher will

- Allow group #2 to present a 25-minute lesson on the classification of the prairie dog.
- Instruct all students to answer related questions on student work sheet.
- Have all students classify the black-tailed prairie dog.

Activity #5  
**Black-tailed Prairie Dog Life Cycle**  
1 class period

**Procedure**

The teacher will

- Instruct students to answer related questions during and after life-cycle presentation.
- Have students construct a life-cycle diagram, and answer work sheet questions.

Activity #6  
**Plague Transmission**  
25 minutes

**Procedure**

The teacher will

- Instruct students to answer related questions during plague transmission presentation.
- Have students illustrate plague transmission by labeling a diagram.

Activity #7  
**Post-test**  
20 minutes

**Procedure**

The teacher will

- Administer the post-test to have students demonstrate knowledge gained.